Great Northern Railway, which passes very near to the quarries. The exhibition catalogue erroneously describes this stone as from the lower oolite.

No. 201 contained specimens from the great and lower oolite in the neighbourhood of Stamford, consisting of the Barnack rag, a shelly, coarse-grained oolite; Stamford marble, a very calcareous shelly stone, with a crystalline paste, which takes a tolerably good polish. Ca terton oolite resembles the last, but the colour is lighter. There was also a specimen from the great oolite of Clipsham, about half-way between Stamford and Colsterworth; one from Whittering Peadle, half-way between Stamford and Wansford; and one from Ketton, all somewhat fine grained and bright cream-coloured; and also a specimen of argillo-calcareous flagstone from beneath the lower oolite at Collyweston, which is extensively used in the neighbourhood for covering roofs as a substitute for slates and tiles.

The Barnack stone contains 93 per cent. of carbonate of lime, cohesive power somewhat less than the Ancaster stone, but greater than the Bath stone from Box; quantity of matter disintegrated 1 grain in 267.

The Ketton stone contains 92 per cent. of carbonate of lime; cohesive power greater than in any other oolites tried by the commissioners; quantity of matter disintegrated 1 in 1340. The Ketton rag stone disintegrates rather more, but requires nearly four times the weight to crush it. The Ketton rag is very heavy, weighing about 155 lbs. 10 oz. per cubic foot. The Ketton freestone weighs 128 lbs. 5 oz. per foot, and is very extensively used for building purposes in Cambridge, Bedford, Bury St. Edmunds, Stamford, also in Peterborough and Ely Cathedrals, St. Dunstan's Church, London, &c. The commissioners give the price in London 3s. 4d. per foot, the high price being occasioned by the expensive freight; but as the Great Northern Railway passes close to Stamford, it is probable the price in London will be reduced to about 2s. 4d. per cube foot.

No. 133 contained six specimens from Painswick, Nailsworth, and other places in the neighbourhood of Stroud. In one or two of these specimens the cement appears scarcely in sufficient quantity to unite the grains firmly. These are all cream-coloured stones from the lower oolite, and resemble the Windrush stone, which was examined by her Majesty's commissioners in 1839. Weight of stone varying from 118 to 135 lbs. per foot. Very durable, used in churches and the neighbouring mansions. There are many tombstones in good condition 150 years old, in the adjoining church-yard.*

THE LORD MAYOR'S SHOW.

Some of our readers may remember, that in consequence of a communication from Mr. Godwin to Mr. Alderman Musgrove, in 1850, first published in our pages, an endeavour was made, and with considerable success, to improve the character of the show. The writer thought, with Thomas Middleton in 1613, that some "art and knowledge, equal to the liberality of the City, should be displayed in the invention of their pageants," that it would be matter for regret if so ancient a proceeding as the Lord Mayor's triumphal riding were abandoned, and that it was desirable to raise it out of the monotonous routine into which it had fallen "by the introduction, among other changes, of emblems and works of art, accordant with its ancient character, and worthy of the present time."

The show on Monday last (the 9th falling on Sunday) was a poor affair, utterly devoid of thought. With the exception that the number of men in armour was increased, and that there were a few more banners than formerly, there was nothing to distinguish it from those which immediately preceded last year's attempt. There was not a spice of art, nor even of knowledge, for the blazonings were mostly incorrect. The most prominent feature was that questionable notoriety, Mr. Widdicombe, ornamented with a black beard. An extemporised communal procession in any small town in France, Belgium, or Germany, elicits ingenious arrangement and artistic beauty: the utmost that London's famous city can do in the way of novelty is, to give twenty men in armour instead of two. Alack, alack!

* To be continued.

PRACTICE AND THEORY.

Dr. Lyon Playfair's inaugural lecture at the Museum of Practical Geology, on Friday, the 7th, contained much valuable matter. His theme was, "The national importance of studying and promoting Abstract Science as a means of giving a healthy progress to Industry." At the close of it the lecturer made the following observations on *practice* as compared with THEORY. If England is to keep pace with other countries as a manufacturing nation, it must be by her sons of industry becoming humble disciples of science. At present her reliance in the "practical," or "common" sense, of her population is the sunken rock directly in the course both of her agriculture and manufactures. On this subject Archbishop Whately has some excellent remarks. "By common sense," says he, "is meant, I apprehend (when the term is used with any distinct meaning), an exercise of judgment unaided by any art or system of rules; such an exercise as we must necessarily employ in numberless cases of daily occurrence, in which, having no established principles to guide us, no line of procedure, as it were, distinctly chalked out, we must needs act on the best extemporaneous conjectures we can form. He who is eminently successful in doing this is said to possess a superior degree of common sense. But that common sense is only our second best guide—that the rules of art, if judiciously framed, are always desirable when they can be had, is an assertion for which I may appeal to the testimony of mankind in general, which is so much the more valuable, inasmuch as it may be accounted the testimony of adversaries; for the generality have a strong predilection in favour of common sense, except in those points in which they respectively possess the knowledge of a system of rules; but in these points they deride any one who trusts to unaided common sense. A sailor, *e.g.*, will perhaps despise the pretensions of medical men, and prefer treating a disease by common sense; but he would ridicule the proposal of navigating a ship by common sense, without regard to the maxims of nautical art. A physician, again, will perhaps contemn systems of political economy, of logic, or metaphysics, and insist on the superior wisdom of trusting to common sense on such matters; but he would never approve of trusting to common sense in the treatment of diseases. Neither, again, would the architect recommend a reliance on common sense alone in building, nor the musician in music, to the neglect of those systems of rules which, in their respective arts, have been deduced from scientific reasoning, aided by experience. And the induction might be extended to every department of practice. Since, therefore, each gives the preference to unassisted common sense only in those cases where he himself has nothing else to trust to, and invariably resorts to the rules of art wherever he possesses the knowledge of them, it is plain that mankind bear their testimony, though unconsciously and often unwillingly, to the preference of systematic knowledge to conjectural judgments." Practice and science must now join together in a solemn union, or the former will soon emigrate to other lands. The time is past when practice can go on in the blind and vain confidence of a shallow empiricism, severed from science "like a tree from its roots." The rudest sailor may steer his ship in the direction of a landmark, but without compass and sextant he dare not traverse the expanse of ocean. Ignorance may walk in the path dimly lighted by advancing knowledge, but she stands in dismay when science passes her, and she is unable to follow, like the foolish virgin, having no oil in her lamp. Depend upon it, an empirical knowledge of practice is not the way now to succeed in the struggle of individuals or in the struggle of nations. Intellect is on the stretch to get forward, and that nation which holds not by it will soon be left behind. For a long time practice, standing still in the pride of empiricism and in the ungrateful forgetfulness of what science has done in its development, reared upon its portal the old and vulgar adage—"An ounce of practice is worth a ton of theory." This wretched inscription acted like a Gorgon's head, and turned to stone the aspirations of science. Believe it not; for a grain of theory—if that be an expression for science—will, when planted, like the mustard seed of Scripture, grow and wax into the greatest of trees. The pressure and difficulties of the age, and the rapid advancement of intellect in continental nations, have been the Perseus to cut off this Medusa's head from the industry of England, and to fix it on the shield of Minerva, who turns to stone such as still believe that science should be ignored by practice, but, reversing that shield, wisely conducts those who would go further under her guidance. It is now rare to find men who openly avow, although they actually entertain a belief in, a necessary antagonism between theory and practice. Theory is, in fact, the rule, and practice its example. Theory is but the attempt to furnish an intelligent explanation of that which is empirically ascertained to be true, and is always useful, even when wrong. Theories are the leaves of the tree of science, drawing nutriment to the parent stem while they last, and by their fall and decay affording the materials for the new leaves which are to succeed. I have now said enough to shew you that it is indispensable in this country to have a scientific education in connexion with manufactures if we wish to outstrip the intellectual competition which now, happily for the world, prevails in all departments of industry. As surely as darkness follows the setting of the sun, so surely will England recede as a manufacturing nation, unless her industrial population become much more conversant with science than they now are.

ARCHITECTURAL EXHIBITION, 1852.

The committee* have taken the Portland Gallery, Regent-street, and have arranged that the exhibition shall be opened on the 12th of January.

Considering that a collection of new materials, new patents and designs connected with architectural construction, models, carvings, decorations, &c., united to the Architectural Exhibition, would be alike of interest to the profession and of great advantage to inventors, by bringing such objects more fully and immediately before the notice of architects and the public, than could be done in any other way, they intend to devote a portion of the gallery to this purpose; and they invite immediate notice of the articles intended to be exhibited, in order that a proper place may be assigned, and arrangements made as much as possible beforehand.

A committee will be appointed to select and arrange, from the articles sent in, such as appear of most general interest, as the comparative limits of the space will probably not allow the whole to be shown to advantage.

We hope many of our advertisers will take advantage of this opportunity, and assist in making the collection valuable. The committee appeal to their professional brethren and others for subscriptions and for designs, to enable them to carry out the project satisfactorily.

ELECTRO-TELEGRAPHIC.—A system of telegraphic wires has been laid from the central Berlin police-office to all the stations and police houses of guard. The plan was first proposed with a view to giving quick notice in case of fire, but the telegraphs will be far more actively employed for the business of the detective force. In case of disturbances the telegraphs will offer the means of concentrating the police or bringing out the military with the greatest rapidity.—*Globe*.

* The following form the committee:—Messrs. Allom, Ashpitel, Bell, Billings, Christian, Colling, Donaldson, Edmeston, Fergusson, Godwin, Gray, Jens, Leach, Lenton, Nash, Papworth, Scott, Seddon, Trendtt, J. D. Wyatt, and Digby Wyatt.